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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,401	02/11/2005	Jozef Arnold Frans Baeten	BE 020020	4671

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
WEEKES, LLOYD	
ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/524,401	BAETEN, JOZEF ARNOLD FRANS	
	Examiner	Art Unit	
	Lloyd Weekes	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *2/11/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20050211*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.
Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves

modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

In particular the abstract uses the legal phraseology "said body" and "said two parts". Correction is required.

2. The disclosure is objected to because of the following informalities: typographical errors. In the second paragraph of the specification reference is made to GB-A 2 360 849, this is believed to be an error, and should be GB-A 2 360 899. In the same paragraph, "an magnetic yoke" should be "a magnetic yoke". Page 5 line 23 reads "structure know per se", should read "structure known per se".

Appropriate correction is required.

The disclosure is also objected to because of the following informalities: the term "building-in" is unclear. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention. Clarification is required. The term "building-in" will be interpreted as "built-in".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,4,7 and 8 are rejected under 35 U.S.C 102(b) as being anticipated by Scanlan (US Patent 5625701).

In regards to claim 1: Scanlan teaches:

An electrodynamic loudspeaker comprising a chassis (basket, Fig 10 item 30), a movable body (dustcap, Fig 10 item 10C) flexibly connected to the chassis and having a three dimensional diaphragm (cone, Fig 10 item 12) with a base part and a top part which is wider than the base part (Fig 10 item 12), and an electromagnetic actuator (motor, Fig 1 item 20) for moving said body (dustcap) with respect to the chassis (basket) along a translation axis extending between said two parts of the diaphragm (cone), which actuator comprises a stationary actuator part (yoke, Fig 10 item 19) secured to the chassis and a translatable actuator part (coil former and voice coil, Fig 10 items 14 and 15), which latter actuator part extends inside a space enveloped by the contours of the diaphragm (**Fig 10**) and is translatable along the translation axis with respect to the stationary actuator part (yoke) and is connected to the movable body (dustcap) in the region of the base part of the diaphragm said actuator parts (motor) being capable of magnetically co-operating with each other across an air gap (column 2,lines 25-35), wherein the movable body (dustcap) comprises, in the proximity of the base part of the diaphragm, a bridging

element (dustcap, Fig 10 item 10C) which is secured to the movable part of the actuator (column 2, lines 25-35) and extends radially with respect to the translation axis (dustcap, Fig 10 item 10C), the diaphragm and the bridging element being interconnected at least at a radial distance to the translatable part of the actuator (Fig 10 items 10C,12, 14) (column 1 line 57- column 3 line 17).

Claim 4: Scanlan teaches:

A loudspeaker as claimed in claim 1, wherein the stationary actuator part (yoke, Fig 10 item 19) comprises a magnetic structure and the translatable actuator part (coil former and voice coil, Fig 10 items 14 and 15) comprises a magnetic coil (voice coil, Fig 10 item 15), said magnetic coil extending into the air gap (column 2 lines 21 –35).

Claim 7: Scanlan teaches:

A loudspeaker as claimed in claim 1, wherein a first flexible connecting (surround, Fig 10 item 13) means is present proximate to the top part of diaphragm and a second flexible connecting (spider, Fig 10 item 10') means is present proximate to the base part of the diaphragm for movably supporting the translatable body with respect to the chassis, and wherein the first flexible connecting (surround, Fig 10 item 13) means is fixed to the chassis and the diaphragm and the second flexible connecting (surround, Fig 10 item 13) means is fixed to the chassis and the bridging element (dustcap, Fig 10 item 10C) (column 2 line 6-57 and column 3 lines 28 –35).

Claim 8: Scanlan teaches:

A loudspeaker unit comprising the loudspeaker as claimed in claim 1 and comprising a housing accommodating the loudspeaker (column 3, lines 36 –45).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2,3,6 are rejected as being unpatentable over Scanlan (US Patent 5625701) as in claim 1 above, in view Borwick ("Loudspeaker and Headphone Handbook", third edition 2001) and further in view of Devantier et al. (US Patent 6327372).

Scanlan teaches of an electrodynamic loudspeaker as in claim 1, but does not explicitly teach that the bridging element (dustcap) is functioning as a cooling element having an anodized surface during operation, and Scanlan does not teach that the bridging element is thermally conductive. However, Borwick discloses that the bridging element (dustcap) can be designed to function as a cooling element (dustcap pumps air past the voice coil). Borwick also discloses that the bridging element (dustcap) may be made of metal - aluminum - connected directly to the movable part of the actuator (coil former and voice coil) (pg 501, **Dust Cap**). It would have been obvious to one of ordinary skill in the art at that time, to include the teachings of Borwick in Scanlan's invention to prevent the destruction of the voice coil and to improve its performance by removing the heat

that it generates. Furthermore, it is well known that metal surfaces can be anodized to protect the metal from humidity or moisture as is discussed in Devantier et al. (column 1, lines 63-65). It thus, would have been obvious to add Devantier's teaching to the loudspeaker of Scanlan and Borwick, so as to increase the durability of the bridging element (dustcap).

7. Claim 5 is rejected as being unpatentable over Scanlan (US Patent 5625701), Borwick ("Loudspeaker and Headphone Handbook", third edition 2001) and Devantier et al. (US Patent 6327372) as in claim 3 above and further, in view of Boniface (US PGPUB 2002/0094105). Claim 5: Scanlan, Borwick and Devantier teach of an electrodynamic loudspeaker as in claim 3, but do not explicitly teach of the bridging element (dustcap) having least one tuning opening. However, Boniface teaches of a bridging element (dustcap) that has at least one tuning opening (a porous dustcap, permeable to air [0041]). Scanlan (column 2, lines 9-11) and Borwick (pg 501, **Dust Cap**) both disclose allowing air to pass over the voice coil to cool it; thus it would have been obvious to one of ordinary skill in the art at that time to include Boniface's bridging element (porous dustcap) in the loudspeaker of claim 3, to allow greater air flow to cool the voice coil thereby achieving greater performance of the voice coil.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Latham-Brown et al. (US Patent 4737992)

Tsai (US Patent 5920638)

Kemmerer (PGPUB 2003/0081808)

Guenther (US Patent 5802191).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lloyd Weeks whose telephone number is 571-220-1067. The examiner can normally be reached on Mon-Thurs 9am -3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Myhre can be reached on 571-220-1065. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LW LW
06/19/06

James W. Myhre
Supervisory Patent Examiner